

Applicants : Bradley T. Messmer, Nicholas Chiorazzi and Emilia Albesiano
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Remarks

Claims 117-135 were pending in the subject application. By this Amendment, Claim 120 has been cancelled without prejudice or disclaimer to applicants' right to pursue this the subject matter of this claim in the future. Claim 117 has been amended to clarify the invention being claimed and the amendments are supported in the specification as filed. This Amendment raises no issue of new matter. Accordingly, entry of this Amendment is respectfully requested.

Claims rejected under 35 U.S.C. § 102(b)

Valetto et al.

The Examiner rejected claims 117-120 and 132-135 under 35 U.S.C. §102(b) as being anticipated by Valetto et al. (Blood 92 (10) suppl. 1, part 1-2, Abstract #1784 (1998)).

In response, applicants note that the claims as pending after entry of the present Amendment do not recite Set I, which is the basis for the Examiner's rejection over Valetto et al. Accordingly, applicants respectfully request that the Examiner reconsider and withdraw this rejection.

Fais et al.

The Examiner rejected claims 117-119, 123 and 132-135 under 35 U.S.C. §102(b) as being anticipated by Fais et al. (J. Clin. Invest., 102(8):1515-1525 (1998)). The Examiner stated "it is noted that the method does not require one to determine whether the entire polypeptide sequence of a B cell receptor on B-CLL cells is fully encoded by the recited antibody genes. Rather, the claims encompass methods wherein one is to determine whether any amount of a polypeptide sequence of a B cell receptor on B-CLL cells is encoded by the recited antibody genes." (Emphasis in original).

In response, applicants respectfully traverse the Examiner's rejection. The recited genes necessarily encode a polypeptide of minimum length. Determining whether a B-Cell receptor is encoded by a *portion* of the recited genes is not recited in or encompassed by the claims. Moreover, even if, *arguendo*, one considered the claim somehow encompasses determining

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“whether any amount of a polypeptide sequence of a B cell receptor on B-CLL cells is encoded by the recited antibody genes” (which applicants interpret to mean “whether any portion of the polypeptide sequence of the B cell receptor on B-CLL cells is encoded by the recited antibody genes”), Fais et al. does not teach such. In this regard, applicants direct the Examiner’s attention to row I of Table II of Fais et al. (the row cited by the Examiner in asserting that Fais et al. teach Set IV) where the gene set described, is, *inter alia*, V_H 1-69, D3-10 and J_H5b. This is in contrast to the V_H 1-69, D3-16 and J_H3 of Set IV recited in claim 117.

The claim recites determining if the B Cell receptor is “encoded by antibody genes comprising a light chain antibody gene and a heavy chain antibody gene, wherein the light chain antibody gene and the heavy chain antibody gene are selected from the group consisting of” the recited sets. Determining if “a portion” of a B Cell Receptor is encoded by the VDJ set V_H 1-69, D3-10 and J_H5b of Fais et al. does not anticipate determining if a B Cell Receptor is encoded by the *different* VDJ set V_H 1-69/D3-16/ J_H3 recited in Claim 117. Only V_H 1-69 is common to both. Claim 117 does not recite determining if a portion of a B Cell Receptor is encoded by V_H 1-69, D3-10 and J_H5b, nor does it recite determining if a portion of a B Cell Receptor is encoded by a portion of V_H 1-69, D3-10 and J_H5b. In this regard, the actual elements recited in the claim cannot be disregarded or modified into something they are not for the purposes of an anticipation rejection. The claim clearly recites, using Markush group language, the options for the heavy chain antibody gene and light chain antibody gene. Notably, the heavy chain antibody gene “V_H 1-69/D3-10/ J_H5b” recited in Fais et al. is not among them.

Accordingly, Fais et al. does not anticipate Claim 117, or those claims dependent thereon, because it does not teach all the elements of the Claim. As such, applicants respectfully request that the Examiner reconsider and withdraw this rejection.

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Claims rejected under 35 U.S.C. § 103(a)

The Examiner rejected claims 117-120, 123 and 135 under 35 U.S.C. § 103(a) as obvious under Damle et al. (Blood 94(6):1840-1847 (1999)). The Examiner stated, *inter alia*, that “one skilled in the art would have been motivated to identify prognostic indicators of B-CLL by determining all V_H and V_L sequences (including those that would be Set I and Set IV).”

In response, applicants respectfully traverse the Examiner’s rejection. For the obviousness rejection to be proper, one skilled in the art at the time the invention was made would have to find the invention as a whole obvious. Thus, the method using the gene set V_H 1-69/D3-16/ J_H3/ V_LκA27/J_Lκ/κ4 (Set IV) would itself need to be obvious (Set I has been cancelled from the pending claims). There is no indication in the art, nor asserted by the Examiner, as to how the specific gene set V_H 1-69/D3-16/ J_H3/ V_LκA27/J_Lκ/κ4 is obvious.

The Examiner’s rejection, which appears to be a rejection of a generic method for identifying prognostic indicators of B-CLL by determining all V_H and V_L sequences, even if such a thing can be achieved¹, is not germane to the invention actually being claimed by applicants. With regard to the “reasonable expectation of success” assertion made in the Office Action, the reasonable expectation of success applies to the invention *as claimed*. Because it was not predictable what specific gene sets could be found in idiotype-specific B cell receptor-bearing B-CLL cells, there was no reasonable expectation of success of effecting the claimed invention. There is no teaching or suggestion in the art of the specific gene set V_H 1-69/D3-16/ J_H3/ V_LκA27/J_Lκ/κ4 nor any explanation of how this specific gene set is obvious. Accordingly, applicants maintain the invention as claimed is not obvious and respectfully request the Examiner reconsider and withdraw this rejection.

¹ See, for example, paragraph [0145] of the published application as published regarding estimating numbers of possible V_H/V_L sequence combinations prior to applicants’ disclosure.

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No fee, other than the three-month extension of time fee, is believed to be required in connection with this response. If any additional fee is required to preserve the pendency of the subject application, authorization is hereby given to charge any such fee to Deposit Account No. 01-1785.

Respectfully submitted,
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